ON A NEW GENUS AND SPECIES OF LABROID FISH FROM PORT JACKSON.

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(Notes from the Australian Museum.)

EUPETRICHTHYS, gen. nov.

Branchiostegals six: pseudobranchiae present. Body elongate and compressed. Gill-membranes attached to the isthmus. Preopercle entire. Jaws with a pair of curved canines anteriorly, and a lateral row of conical teeth: posterior canine present. Dorsal fin with nine spines and twelve rays: anal with three spines and eleven rays; ventral fins with an elongated ray. Scales cycloid, large: opercle and cheek scaly. Lateral line continuous.

From the above diagnosis it is evident that the true position of this fish belongs to that group of Labridae to which Dr. Günther (Brit. Mus. Cat. IV. p. 66) has given the name Julidina, and a glance along the different sections of that group shews that its place is among those having "nine dorsal spines, the lateral line not interrupted, and the cheeks and opercles scaly." Its close affinity to Labrichthys—that most numerously represented genus of Labroids on our shores—is at once apparent, but in such a genus where the fin formula remains constant throughout the whole series of about thirty * species, any departure from the normal number must necessarily carry with it a greater weight than among fishes which enjoy a greater latitude in this respect. This difference therefore coupled with the elongate ventrals and general form have induced us to raise this new species to generic rank under the above name, placing it in the system between the genera Labrichthys and Labroides.

^{*} The examination of a more extended series of specimens will probably reduce this number somewhat.

EUPETRICHTHYS ANGUSTIPES, sp. nov.

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The length of the head is contained five times in the total length; the greatest height of the body, which is behind the origin of the anal fin, five and a-half times: the height of the head at the nape is five-sevenths of its length; the greatest breadth one-half of the same. The eye is situated almost entirely above the middle of the side of the head, but does not encroach upon its upper profile; it is of small size, its diameter being contained four and three-fifths times in the length of the head; the snout is moderately obtuse and is one-seventh longer than the diameter of the eye; the interorbital space is four-fifths of the same, and is convex, as also is the upper profile of the head. The jaws are of equal length, and the lips of moderate thickness; the cleft of the mouth, which is almost horizontal, is small, the posterior extremity of the maxillary barely reaching to the eye. The preopercular bones are entire. Teeth.— A pair of strong anterior canines in each jaw, those of the lower being sub-horizontal and received between those of the upper; on each ramus of the mandible there are ten, and of the maxilla nine conical teeth, the anterior one being the strongest, and the others decreasing in size by regular gradations; there are no perceptible teeth behind these; posterior canine present.* Fins—the dorsal fin commences slightly in front of the lobe of the opercle; its spines are weak, and considerably lower than the rays, the last of which is nearly double the length of the last and longest spine, which is itself two-fifths of the length of the head. The anal fin commences beneath the anterior dorsal ray; its spines are rather stronger but not so long as those of the dorsal, and the third and longest is only three-sevenths of the posterior ray, which exceeds in length the corresponding ray of the dorsal fin; the last ray in both these fins is divided to the very base. The ventral fin

^{*} In our specimen there are two posterior canines on one side, and only one, as is usual, on the other, but, as the same discrepancy not unfrequently occurs in the allied genus *Labrichthys*, no stress need be laid upon its occurrence in this case.

originates beneath the middle of the base of the pectoral; its spine is midway in length between the longest of the dorsal and anal fins, and is one-third of the first ray, which is elongate. reaching to the origin of the anal, and equal in length to the head. the second ray is much shorter than the first, and, while the third is but little more, the fourth and fifth are considerably less, than the spine. The pectoral fins are short and rounded, two-thirds of the length of the head, and reaching to the vertical from the seventh scale of the lateral line. The caudal fin is rounded, and is of equal length with the head: the length of the free part of the tail is three-fifths of its height between the terminations of the dorsal and anal fins. Scales—those on the opercle are almost as large as those on the body, and form three irregular rows, while those on the cheek are much smaller, and comprise about ten scales in a single row, which does not quite cover the cheek, and extend from behind to beneath the middle of the eye: there are three sets of scales between the occiput and the origin of the dorsal fin, and a similar number between the dorsal and caudal fins. bases of the dorsal and anal fins are naked, but the caudal is clothed for fully half its length with small oblong scales. The lateral line rises with a gentle curve to beneath the fourth dorsal spine, and from thence has an almost imperceptible downward slope to beneath the tenth ray, where it drops suddenly down to the centre of the tail, leaving four scales on the lateral line between the flexure and the caudal fin, the last of which is on that fin, and is much enlarged. The anterior scales are simply branched by a single offshoot rising near the middle of the main tube on each side and thus forming an almost rectangular cross; from thence to the end of the flexure they bear from five to eight (and even ten) branchlets, most of which rise from the upper side of the main tube; behind this the branching again decreases. Pores—the upper surface of the head is studded with small circular pores, while the preorbital and preopercle are supplied with raised tubular pores, which are frequently arbuscular. Colors*—upper half of body dark green, lower half yellow with

^{*} Taken from the living fish.

seven purplish transverse bands, darkest inferiorly, where they are much broader than the interspaces, and even coalesce on the abdominal region, which is further ornamented with brilliant violet spots and streaks; upper part of head paler than the back: a narrow violet band runs obliquely downwards from the eye to the middle of the maxilla; a second parallel to this just touches the end of the maxilla, but does not quite join the corresponding band on the opposite side; a third, which is much fainter, runs from the antero- to the postero-inferior angle of the orbit, forming a semicircle, which encloses a purple spot; there are two more narrow pinkish vertical bands descending from the cheeks to the isthmus, which is of a pale blue color: the lower part of the opercle is purple, and there are several round spots of the same color behind the eve. Dorsal fin pale red with a brilliant blue spot between the two first spines, and the outer half of the web of the three first orange with narrow pale blue longitudinal streaks; an olive-green band, broadest posteriorly, runs along the outer half of the entire length of the fin, but only touches the margin on the last two or three rays: below this are numerous carmine spots and short oblique streaks, while above it are numbers of small circular pale blue spots. Anal fin similar but paler, with the olive-green band suffused over the entire outer half, and ornamented with oblique wavy blue lines, which sometimes form reticulations; carmine spots as in dorsal fin. A broad olive submarginal and a grey marginal band on the caudal fin, both of these being traversed by pale blue arcuate waved lines, the enclosed space being salmon-color with carmine spots on the rays. Pectoral fins hyaline. The outer ventral ray saffron with a narrow blue Irides brown and silvery with a narrow edging of orange on the inside.

For the pleasure of describing this most beautiful fish we are indebted to the commendable liberality of the proprietors of the Royal Aquarium, Bondi, who handed to us the living fish on its being pointed out that it was of a species unknown to us. Its total length is about 6.25 inches, and we are informed that it was obtained at Rose Bay, Port Jackson, on the 8th inst. Register number I. 1418.